Quality Assurance Workgroup Conference Call Notes
March 12, 2002

Attendees

Mike Papp	Gordon Jones	Eileen Mitchell
Tim Hanley	Mark Shanis	Don Gourley
Anna Kelly	Will Kaldy	Dennis Mikel
Amelio Roganza	Mike Miguel	Donovan Rafferty

Mike Papp explained that the purpose for the workgroups was to review quality control requirements that occur in each of the methods. This group's specific task is to review the monitoring method for ozone to determine if the requirements in 40 CFR parts 50 and 53 are up to date. The reliability of the instruments has improved since the Measurement Quality Objectives (MQO) were last written. The group needs to determine what is technically reasonable for a program.

The technical assistance documents for the measurement of ozone are outdated and is a big issue in the regions. OAQPS recognizes that the revision to these documents is a priority. However, the group needs to focus on revisions to the CFR's now and a review of the technical assistance documents can be done later.

Members of the group were asked to keep in mind the use of the Performance Based Measurement Process (see Quality Assurance Strategy Report) throughout this revision. The criteria that we set may be important but not necessarily needed in the CFR's. When reviewing the criteria for ozone, we need to see if the requirements:

- Need to be changed
- Are appropriate for the CFR
- If not in CFR then put in Red Book, guidance documents or QAPP

In developing ozone measurement quality objectives, we should try to mirror the format that is similar to the $PM_{2.5}$ Monitoring Template. The format consists of three tables; **critical, operational and systematic**.

The group was reminded to think about allowing for flexibility of acceptance criteria in the CFR's with the idea that specifics could be included in the Quality Assurance Project Plan (QAPP). An example would be that instead of " the shelter shall be within 20 to 30 degrees" an alternative might be "a range of 10 to 40 degrees depending upon the type of instrumentation in the shelter". Specific requirements could then be put in the QAPP.

Shelter Temperature

There was some discussion about the link between the temperature range that instruments receive their reference/equivalency and shelter temperature. Some felt that most of the instruments (in shelters) operate and collect valid data outside the temperature range currently in CFR (20-30 degrees C). This should to be investigated to see if the CFR's are "guiding" manufacturers to say what temperature range that the instruments must be operated at.

A poll was taken from participants to see who invalidates data due to shelter temperatures exceeding the 20-30 degree range. Four out of five responded that they do not normally invalidate the data solely on these criteria. This response led to the assumption that this was not a critical criteria if it stood alone and **would be placed in the Operational Table**. However, the tracking of shelter temperature is critical no matter what temperature window is decided upon and should be done.

The recording or tracking of shelter temperature is important but it should not be dictated in the CFR's as to how it is done. It was suggested that a generic approach could be used thus allowing the monitoring agencies the flexibility to decide how it is to be recorded. We could "mandate" the tracking of the shelter temperature but provide agencies the flexibility in their QAPP's in deciding how it will be done. This allows the agencies to decide how they will do it and what risk (of losing data) they want to take.

Other conditions such as dew point need to be considered and is mentioned in the MQO. It was acknowledged that this was an issue and the group could come back to it a later time.

The relevance of recording the shelter temperature came up since most instruments run at a higher temperature. There are those that feel that instrument temperature is more important than shelter temperature. Many of the new instruments have temperature sensors, which can be recorded by data loggers. Those agencies choosing to track instrument temperature should be given the flexibility to validate/invalidate data using instrument temperature opposed to shelter temperature. The tracking of instrument temperature should be an option as a "surrogate to acceptability" and could be put in guidance.

Equipment

The group felt that this **should be left alone**.

Detection

The criteria of 10 PPB for the **lower detectable level should be lowered to 3 PPB**. The detectable limit for instruments has improved. It was questioned that this may be an instrument specific/purchase issue and may not be even needed in the validation criteria.

AIRS is set up to deal with detectable levels for any one instrument and when data is loaded by the states it is loaded with method codes. It was questioned why MDL's should they be "dummied" down in the CFR's to a nationally consistent one when it can be done in the DQO's by a specific method. Perhaps "aggregate average is, see individual method for specific" might be more generic. It was suggest that Part 53.2 and 23 are changed to reflect what the instruments really can do.

Noise

It was recommended that the noise should be the same or lower than the lower detectable limits. The detectability is something that the instrument should see above the noise. With the newer instruments, noise levels are lower than 2 PPB. As instruments get older the noise levels go up. It was recommended that **the noise should be lowered to 3 PPB**.

Completeness

The completeness requirement for ozone **should be the same as the PSD requirements.** Since appendix A and B will be merged together, the completeness requirement should be made consistent.

There was the thought of having some sort of guidance on when not to calibrate ozone analyzers to prevent missing daily maximum ozone values.

Action Items:

Mike Papp offered to get the critical tables out on AMTIC and those interested could pull them down and write in what they would propose as changes.

Talk to Jake Sommers about identifying by method what an acceptable detection limit is for analyzers used in the networks today.

Schedule the next conference call for March 27,2002.